As manufacturer of safety equipment, the Cobianchi Liftteile AG company is responsible for the design and manufacture of the Cobianchi progressive safety gears (downward, PC200E) and brake devices (upward, PC200U).
In order to make the production, the distribution, and the maintenance of our progressive safety gears and brake devices easier for the manufacturers of the framework and for the installation companies, these operating instructions have been established.

These operating instructions document the standard version PC200D. If your installation type differs from the versions described in these instructions, please contact your technical office or the responsible construction department.

In the following you will find important notes, which if properly observed will contribute to an impeccable installation and operation.

The following drawing has to be enclosed with these operating instructions:

Drawing no.	Progressive safety system	Front view, top view, side view
200D-BA01-1	PC200D	Assembly drawing FV with Pos. no.

These operating instructions consist of some pages of text (number depending on the language) and one drawing. Customer-specific solutions may require deviating installation sequences. The progressive safety system can be installed on top of or underneath the cabin. The lifter rope engagement takes place at the draw-in lifters (Pos. 11). Please observe correct assembly of safety rope connector (Pos. 6). For detailed information, please refer to our technical documentation.

Subject to deviations from the standard versions described here.

To be observed prior to the installation:
The progressive safety system PC200D consists of an approved progressive safety gear PC200E (downward braking, consisting of two adjusted and sealed safety gear heads) and a brake device PC200U (upward braking, consisting of two adjusted and sealed safety gear heads). All performance specifications on the type plates refer to one pair PC200E and PC200U. The same serial numbers are embossed on two safety gear heads. These numbers must correspond to the serial number on the type plates attached and enclosed and must be able to be allocated to the serial number of the installation. If this is not the case, then a mistake has been made and it is necessary to refer back to the purchasing department, your own stores department or directly with the manufacturer.

1. Assembly

1.1. Assembly and alignment of safety gear heads

As a standard, delivery is made in fully assembled condition and adjusted with four gusset plates (Pos. 5). Support plates (Pos. 4), lifter shafts (Pos. 3), stop-triggering bushings (Pos. 3a), two limit switches (Pos. 8), and safety rope connector are mounted on the safety gear rope side.
The gusset plates (Pos. 5) have to be screwed to the frame using a sufficient number of M20 screws. In the area of the hanging brackets the screws have to be screwed directly in the housings of the basic units (Pos. 1 and 2). Secure absorption of the torque acting on the frame structure via the gusset plates (Pos. 5) during the brake process must be ensured.
For impeccable function of the brake system it must be ensured that the distance of the brake shoes (Pos. 12) from the left- and the right-hand side of the guide rail running surface is equal. If necessary, ensure exact position by moving the guide shoes and secure against displacement.
For additional stabilization, the support plates (Pos. 4) can be secured at the safety gear frame using M12 screws.

1.2. Mounting of connection shafts between safety gear heads

The connection shafts are not supplied by Cobianchi Liftteile AG.
Connect the structural steel tubes cut to suitable length (centre distance 230mm) 20x20x2.5 or 3mm according to DIN2395-3 to the square section release shaft coupler (Pos. 7) and tighten bolts and lock nuts.
After assembly of connection shafts has been completed, check that the linkages can be rotated easily by hand. Make sure that no excessive torsion occurs within the connection shafts. The draw-in lifters (Pos. 11) of the safety gear heads that are part of a pair must engage on both guide rails simultaneously. In the case of great centre distances, the connection shafts should be reinforced, for example. by means of round pipes, and if necessary, additionally supported in order to prevent sagging. If required, the adjusting flange can be ordered as accessory.

1.3. Assembly of support plates and lifter

If not already preassembled, the support plates (Pos. 4) have to be screwed to the gusset plate (Pos. 5) on the safety gear rope side. Position stop-triggering bushings (Pos. 3a) and insert lifter shafts (Pos. 3). The rollers of the limit switches (Pos. 8) must be positioned in the recess of the triggering bushings (Pos. 3a). Then secure the lifters (Pos. 3) at the draw-in lifters (Pos. 11) and the lifter shafts using the bolts (Pos. 9). Mount spring (Pos. 3) between the lifters (Pos. 3) according to the drawing. Before tightening bolts and lock nuts check that the draw-in lifters (Pos. 11) are in neutral position. The top draw-in lifters (Pos. 11) have be pulled towards the bottom to the housings by means of the spring (Pos. 3). The bottom draw-in lifters (Pos. 11) towards the very top to the housings. The bottom brake shoes (Pos. 12) must also be pushed to the very top by the brake shoe return systems The lifters (Pos. 3) and support plates (Pos. 4) must be parallel, when viewed from above. Then tighten all bolts and lock nuts. Subsequently, check that the lifters (Pos. 3) can be moved freely up and down from the initial position.

1.4. Mounting of safety rope connector to the two lifters

Connect the safety rope connector (Pos. 6) to the lifters (Pos. 3) by means of the two pins, insert rubber rings and secure pins by means of splint. With the spring hung in (Pos. 3) the two lifters (Pos. 3) must pull the draw-in lifters (Pos. 11) in the neutral position (safety gear fully open). For precise adjustment of the safety rope connection (Pos. 6) the connecting bolts have to be loosened slightly. Subsequently, remove the clearance in the elongated holes by pulling the rope end connections to the top and the bottom and tighten connecting bolts. Check manually that the engaging lever system moves smoothly.

1.5. Type plates

Before attaching the enclosed type plates in a clearly visible position of the frame, the intended surface must be cleaned and be completely dry. The adhesive surfaces of the type plates must not be touched over a large surface. After adhering press firmly.

1.6. Indicating label for oiled rails

Every progressive safety system for use with oiled rails is supplied with a yellow indicating label. This should be attached in a clearly visible position (e.g. on rail oiler). Only an ordinary machine oil of the viscosity class ISO VG 68-150 must be used without any extreme-pressure additives (lubrication oil C according to DIN 51517, part 1). Because lubricating oils for gearboxes, engines or hydraulic units frequently contain additives, they are not suitable for this application.

2. Connection

Wire limit switch (230 V, 4 A) (Pos. 8) and check function.
Connect safety gear rope with rope end connections of safety rope connector (Pos. 6).
The release force at the lifters (Pos. 3) required for the safety gears to engage is approximately 350-400N. It must be ensured that the tensile force in the limiter rope generated by the released speed limiter is at least 2 times the force required for the safety gears to engage (however, at least 300N).

3. Commissioning

Note: To be observed prior to the first safety gear test:
In all cases, dirt, rust-protection, and eventual paint coats have to be removed from the guide rail running surfaces. This is made best using cold cleaning agents or brake disk cleaning agents.
In the case of oiled rails the lubrication oils C recommended according to the yellow indicating label should be used (DIN 51517, part 1, viscosity ISO VG 68-150).

4. Maintenance

If the progressive safety system has been correctly installed, then the maintenance is limited to the following checks:

4.1. Condition of rails:

according to above commissioning instruction

4.2. Triggering linkage:

Synchronous response of engaging lifters (Pos. 11), connection of connection shafts, free and smooth movement of lifters (Pos. 3) in the respective direction.

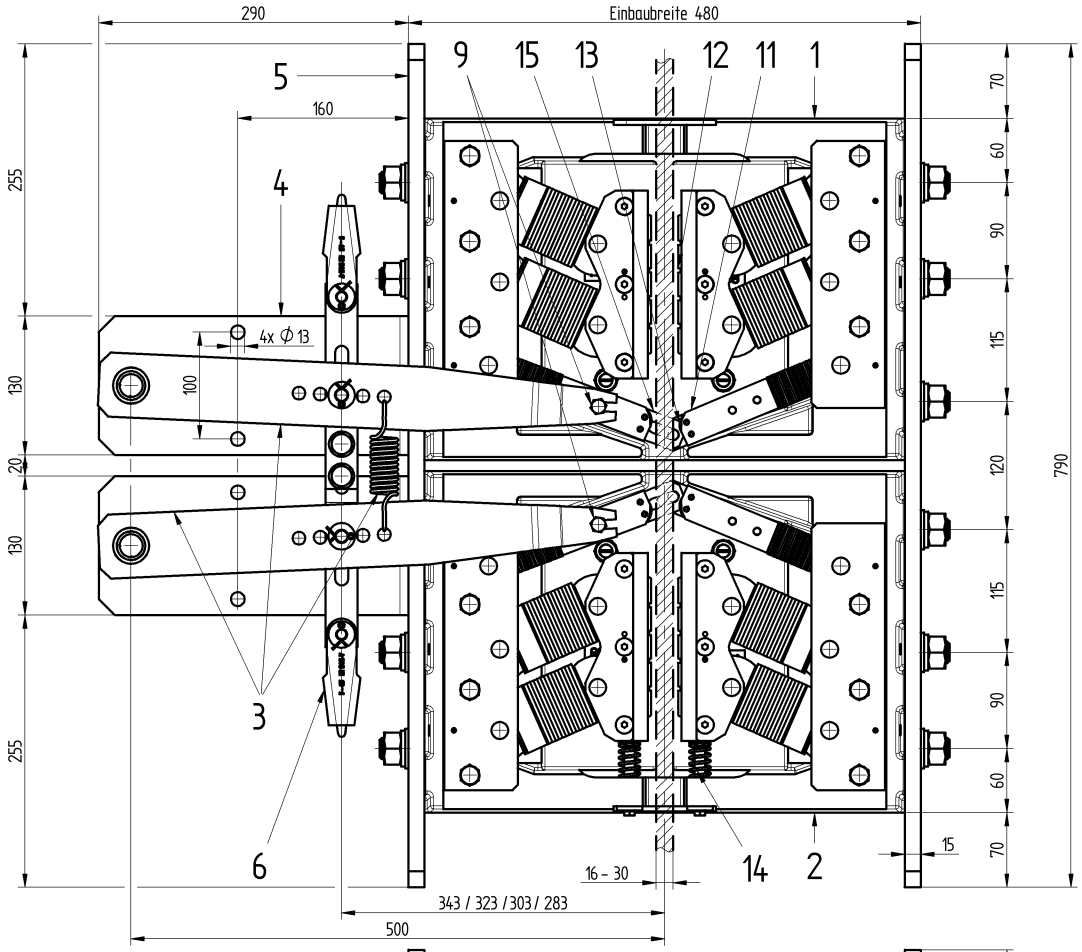
4.3. Limit switch:
Correct electrical/mechanical functioning, actuation ensured

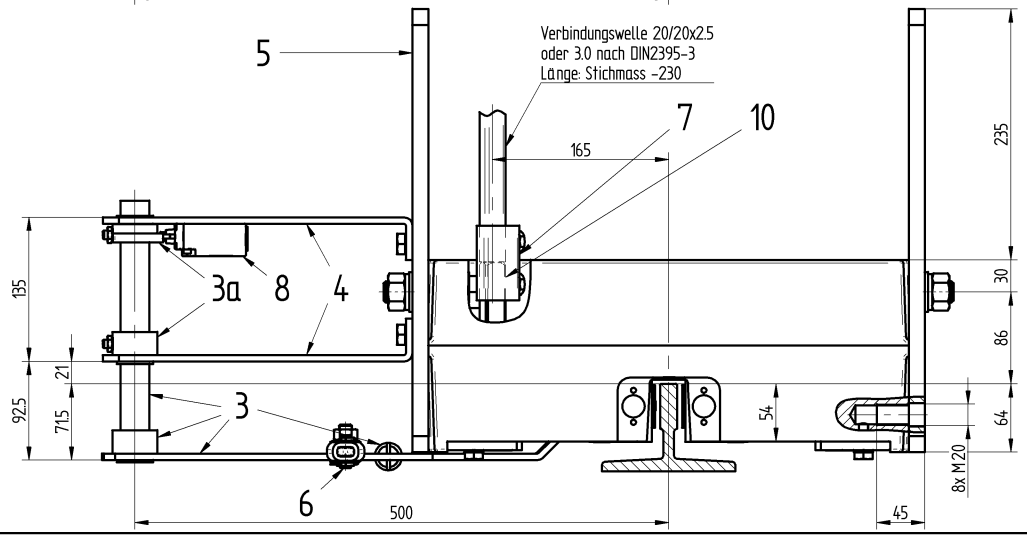
4.4. Safety gear heads:
centred, clean

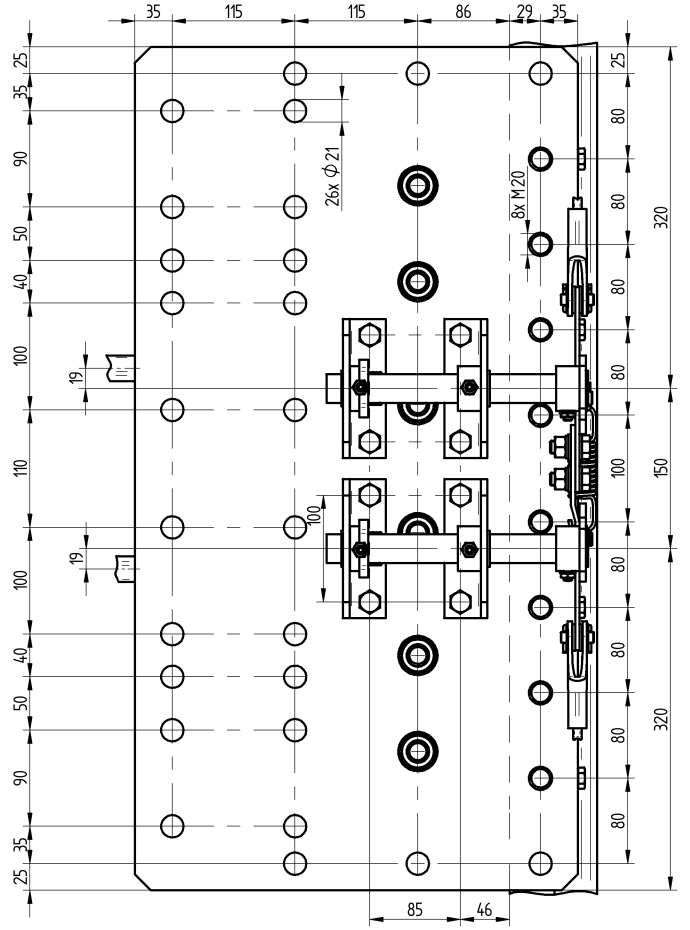
4.5. Guide-ways of cabin:
In an impeccable condition.

4.6. Cleanliness:
In general and in particular in the case of building construction elevators and conversions of existing installations: make sure that the safety gear heads are protected against contamination with plaster, concrete, cement, mortar, gravel or other materials. Contaminated safety gear heads have to be dismantled and cleaned.

If these simple instructions are followed, then the safety for the users of the elevator as well as for the installation company can be increased significantly.







Technische Änderungen vorbehalten

Stückzahlen für Bremsfangsystem

Stk.	Gegenstand	Pos.	Werkstoff	Modell	Bemerkungen
4	Auslöseverbindung kpl.	15	-	-	-
2	Bremsbackenrückstellsystem	14	-	-	-
8	Zahnsektor	13	-	HL20-33-1	-
8	Bremsbacke	12	-	HL20-16-4	-
8	Einzugheber	11	-	HL20-08-1	-
8	Auslösewelle	10	-	HL20-06-1	-
2	Schraube	9	-	HL20-03-1	-
2	Endschalter	8	-	DA-MZ05-2	-
2	2 Auslösevierkant kpl.	7	-	DA-MZ03-3	-
1	Seilschlossgarnitur kpl.	6	-	200D-MZ30-1	-
1	4 Knotenbleche	5	-	200D-MZ19-1	-
2	2 Stützbleche	4	-	200E-MZ45-1	-
2	Heber kpl. inkl. Heberachse und Feder Anschlag- Auslösehülse kpl.	3 3a	-	200E-MZ01-1 (DA-MZ28-3)	-
1	Grundeinheit	2	-	(200U-N480R16)	-
1	Grundeinheit	1	-	(200E-N480R16)	-

Das Urheberrecht auf dieser Zeichnung und allen Beilagen, die dem Empfänger persönlich anvertraut sind, verbleibt jederzeit unserer Firma. Ohne unsere schriftliche Genehmigung darf diese nicht eingesehen (EDV), kopiert, vervielfältigt und weiteres Dritten möglich / der zugänglich gemacht werden.

Änderung: (Datum / Index)

Ausgabe: 17.09.09 / HG

Zusammenstellung

zu Betriebsanleitung

FV-Typ: PC200D

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Massstab	Gezeichnet	17.09.09	HG
1 : 5	Kontrolliert	17.09.09	HG
-	Geprüft	17.09.09	DH
-	Ersatz für:	-	

Zeichnungsnummer

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